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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/677,583	09/29/2000	Alberto F Alvarez-Calderon		3871

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EXAMINER

SWINEHART, EDWIN L

ART UNIT	PAPER NUMBER
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3617

DATE MAILED: 04/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

Applicant(s)

Examiner

Group Art Unit

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 3/13/02
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-4, 6-16, 19, 25-51 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☒ Claim(s) 25, 26 is/are allowed.
- ☒ Claim(s) 1-4, 6-16, 19, 27-51 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____
 - ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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DETAILED ACTION

1. The Supplemental amendment filed March 13, 2003 has not been entered as such is considered to have been non-compliant as it has not been submitted in the format required under 37 CFR 1.121.
2. The substitute specification filed 7/31/2002 has been approved.
3. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).
4. Clarification is required regarding the claimed weight of water being displaced being greater than the weight of the watercraft. Such would appear to contradict the accepted relationship of equality of the two.
5. Claims 1-4,6-16,19 29-35 and 37-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, "said downward hydrodynamic force" lacks antecedent basis in the claim(s).

In claim 13, "said trailing edge flaps" lacks antecedent basis in the claim(s) (Only a single flap had previously been set forth).

In claim 7, "said flap" lacks antecedent basis in the claim(s).

Claim 16 is not understood.

Claim 29 repeats limitations which have already been set forth.

Claims 32-35,38 and 39 depend from a canceled claim.

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Claim 37 is not understood.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 27-29 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Perce.

Perce teaches a watercraft configured as claimed, with narrow front, broad rear, and diving planes **64-70**. The planform is generally triangular.

Re claim 4, the upper and lower surfaces taper towards each other in the region **16,20**.

Re claim 36, a shift in the center of buoyance as claimed is an inherent feature of submersible craft.

8. Claim 42 is rejected under 35 U.S.C. 102(b) as being anticipated by Mills.

Mills teaches the claimed hull shape.

Re "surface and subsurface..." such fails to define any specific structure and/or arrangement so as to define over the submarine hull of Mills, as a submarine will inherently operate on the surface at times.

9. Claims 40-42,45-47 and 49-51 are rejected under 35 U.S.C. 102(b) as being anticipated by Spear.

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Spear discloses the claimed invention, including wedge-shaped bow and stern ends as claimed. Ballast tanks are provided adj the bow and stern, and an area 31 is bounded by flat plates forming a streamlined superstructure above the waterline. A stern mounted control surface is provided as well.

Re claim 47, any vessel is “adapted” to be dropped with an attached parachute. As claimed, such is not a positive recitation as such.

Re claim 49, such is inherent with surface ships.

10. Claim 43 is rejected under 35 U.S.C. 102(b) as being anticipated by Wheless.

Wheless shows approximately wedge-shaped bow and stern ends as claimed, and the included angle of the stern end being approximately twice the included angle of the bow end.

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 44 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spear in view of Briggs et al.

Spear fails to disclose wings and wheels.

Briggs et al. teaches a submarine provided with at least one wheel, and wings.

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It would have been obvious to one of ordinary skill in the art at the time of the invention to provide Spear with wheel(s) and wings as taught by Briggs et al.

Such a combination would have been desirable at the time of the invention was made so as to provide for operation above the water and on land.

Re the exact number of wheels employed, such is considered to have been an obvious design consideration, well within the level of skill of the ordinary routineer working in the art at the time of the invention.

13. Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perce in view of Bandyopadhyay.

Perce fails to teach a trailing edge flap.

Bandyopadhyay teaches a submersible having a trailing edge flap as claimed.

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide Perce with a trailing edge flap as taught by Bandyopadhyay.

Such a combination would have been desirable at the time of the invention was made so as to provide a more effective flap.

14. Claims 25 and 26 are allowed.

15. Claims 1-4,6-16 and 19 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

16. Applicant's arguments filed 3/13/2002 have been fully considered but they are deemed moot in view of the new grounds of rejection.

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17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

18. Papers relating to this application may be submitted to Technology Center 3600 by facsimile transmission. The submission of such papers by facsimile transmission must comply with the notice published in the Official Gazette, **1096 OG 30** (November 15, 1989). The Fax Center number is (703)-872-9326.

19. Any inquiry concerning this communication should be directed to Ed L. Swinehart whose telephone number is (703)-308-2566.

20. Any inquiry of a general nature or relating to the status of the application should be directed to the Technology Center 3600 receptionist whose telephone number is (703)-308-1113.

April 24, 2003



Ed L. Swinehart
Primary Examiner
Art Unit 3617